

REMARKS/ARGUMENTS

In response to the Office Action mailed May 16, 2006 and in lieu of filing an Appeal Brief, Applicants amend their application and request reconsideration. In this Amendment, claims 6, 7, 15, 16, 18, 20, 21, 25, and 29-31 are newly cancelled. Accordingly, claims 5, 8-14, 17, 19, 22, 24, 26-28, 32-34, and 61-64 are now pending.

A substantial effort has been made in preparing the claims presented here to advance the prosecution of this patent application. Five independent claims of substantially different scope have been previously presented and the independent claims presented here are likewise substantially different in scope. In the Office Action mailed May 16, 2006, the various and substantially different limitations of independent claims 5, 17, 22, and 61 were jumbled together in the commentary that appears at page 2 of the Office Action. Separate comments appear to have been supplied with respect to independent claim 22 at pages 4 and 5 of the Office Action. Those comments concerning claim 22 do not closely follow all of the language of the claim that was presented for examination. If the claims are not allowed in response to this Amendment, Applicants respectfully request a detailed explanation as to the basis of rejection of at least each of the independent claims, separately for each claim, so that an informed understanding of any further rejections can be made and, if appropriate, a further *bona fide* response can be prepared.

An important feature of the invention, as explained in the previous Responses, relates to the processing of previously recorded information with a relatively low and, therefore, inexpensive computing-power apparatus. In the process that is the subject of the invention, previously recorded information, for example, audio information, is transferred from the previously recorded source, in an uncompressed format, to a memory device. Then, subsequently, that information, generally referred to as a set of signals in the claims, is retrieved from the memory device to which it has been transferred, and converted into a compressed format. The information in the

compressed format is subsequently stored either in the same memory or storage device from which the uncompressed information was retrieved or in a different information storage device or memory. The memory space previously occupied by the set of signals in the uncompressed format is then released for re-use in the process. Also of importance and explained in many claims is the retrieval of the set of signals in the compressed format, the conversion of those signals to an uncompressed format and their reproduction for perception. In order to minimize the computing power needed, these processes are carried out in a prioritized way so that few, perhaps even only one, such process is being carried out at one time by a relatively low computing-power processor. For example, there is no conversion of a set of signals in an uncompressed format to signals in a compressed format when there is an ongoing retrieval of a set of signals in the compressed format and their conversion into an uncompressed format for perception. These features are made more apparent in the five independent claims presented here, claims that have been clarified with respect to predecessor claims and that include, in some instances, limitations formerly appearing in dependent claims.

Turning solely to the independent claims presented here, amended claim 5 incorporates limitations of former claims 6 and 15. Amended claim 17 incorporates the limitations of former claim 20. In combining these claims and other claims, and in claims still pending and not combined, clarifications of the claims have been made. Redundant claims and limitations have been deleted. Further, the description formerly appearing in the preambles of claims 5 and 61 that is not necessary to understanding the invention claimed has been removed.

Claims 5 and 17, while different from each other, incorporate some similar method steps. Both claims describe sequentially transferring a plurality of sets of signals previously recorded in an uncompressed format from a first storage device to a second storage device, still in an uncompressed format. Subsequently, the sets of signals are transferred to a second memory device. The sets of signals in the second memory device are ultimately retrieved, compressed to a compressed format, and stored again in the second or another memory device, with the formerly occupied

memory space of the second memory device being released for storage of other sets of signals. The methods of claims 5 and 17 expressly include retrieving from the second memory device and compressing only one such set of signals at a time. By limiting the retrieval, compression, and subsequent storage in the compressed format to one set of signals at a time, the processor carrying out this process need not have large computing power so that the methods can be practiced inexpensively.

Claim 22 has been amended for clarity but not amended in a substantive way. The method of claim 22 includes an important prioritization, recited in the final paragraph of that claim, that permits the use of a low computing-power processor. Initially, that paragraph describes retrieving and decompressing audio tracks so that the tracks can be reproduced for perception. Other paragraphs of that claim describe the transfer of previously recorded information between first and second storage devices in an uncompressed format, the subsequent retrieval and compression of audio tracks from the second storage device, and storage of the audio tracks in the compressed format in that second storage device. All of these processes do not occur simultaneously. Rather, as described in the final paragraph of claim 22, the only time that compressing of a set of audio tracks takes place is when there is no pending request for an audio track to be played, i.e., retrieved in a compressed format and converted to an uncompressed format. Further, there is no simultaneous compressing of audio tracks and decompressing of audio tracks. These express limitations on the method again provide the advantages of low cost in the execution of the method so that apparatus performing the method can be readily manufactured for consumers at an acceptable market price.

Amended claim 28 combines the limitations of examined claims 28-31. Claim 28 is directed to a “system” including a processor that is programmed to carry out a method like the methods described in other claims. Within those methods, the system of claim 28 prioritizes compressing a set of digital signals and storing a set of digital signals after compression, as compared to retrieving and converting to an uncompressed format digital signals that had been previously compressed. As

explained in examined claim 31 and as appears in amended claim 28, the processor gives priority to converting a set of signals in a compressed format into an uncompressed format, i.e., for reproduction and perception, over converting a set of digital signals in an uncompressed format into the compressed format. In other words, the processor is programmed so that these processes do not occur simultaneously and reproduction of stored signals is given priority over further processing of signals to be stored so that the system minimizes the computing power required while providing the user with apparently seamless reproduction of stored information that has been compressed to minimize the memory capacity needed by the system.

Independent claim 61 has been clarified to explain, as alluded to in the description above with respect to other independent claims. Only when the processor is not controlling accessing of audio segments already stored are audio signals not yet converted to a compressed format converted into that compressed format and stored. Again, this prioritization minimizes the computing power needed by the processor so that a low cost product can be manufactured.

Formerly pending claims 5-22, 24-34, and 61-64 were rejected in the Office Action mailed May 16, 2006 as obvious over Fiedler (U.S. Patent 6,804,638) in view of Dye (U.S. Patent 6,370,631). This rejection is respectfully traversed, particularly as to the claims now presented.

As best understood, Dye was relied upon solely as describing a compression/decompression algorithm to supply the parts of the claimed invention relating to compressing and decompressing signals, digital signals, and audio tracks, acknowledged to be absent from Fiedler. Assuming, for the sake of argument, that Dye includes such a disclosure, then the remainder of the claimed subject matter must be found in Fiedler for the rejection to be properly maintained with respect to the claims now pending.

Fiedler describes an apparatus and associated method directed to recording, essentially continuously, a source of information for which a subsequent decision may be made for permanent storage of that information. The previously unrecorded

information being received is continually recorded on a circular buffer of relatively large, but finite, capacity. Recording in that circular buffer begins at some arbitrary time and information is continuously recorded until the circular buffer is filled. When the capacity of that circular buffer is nearly reached, then the contents of the circular buffer may be transferred to an acquisition buffer for long term or permanent storage or be discarded as new information is continually flowing into the circular buffer.

The circular buffer in Fiedler permits a belated decision on whether to store the incoming information, a decision that is made sometime after the information is received and initially stored in the circular buffer. The deadline for making the decision as to storage depends upon the capacity of the circular buffer and of the acquisition buffer. As previously described, an example in Fiedler concerns recording of a telephone conversation that may be illegal until a participant's permission is obtained. If and when permission is obtained for recording, the recording party can then capture the telephone conversation from the beginning based on the tentative recording in the circular buffer. As described by Fiedler, the beginning information is saved until a "discard" or a "keep" decision is made with respect to the telephone conversation example. Fiedler provides other examples of conceptually similar delayed decisions in determining whether to save, permanently, live information that is being captured continuously.

The invention as defined by the claims now pending is substantially different from and is neither described by nor suggested by Fiedler, even omitting the compression decompression features for which reliance was placed upon Dye. As previously explained, and succinctly described at pages 6-9 of the patent application, even using the reduced computing capacity of a microprocessor employed in the invention, a 60-minute music CD can be stored on a hard disk within six to eight minutes. The information from the CD is transferred to the first memory or storage device in an uncompressed format, transferred again, converted to a compressed format and finally stored in that compressed format. As explained in amended claims

5 and 17, only after the transfer of all of the information in the uncompressed format, the retrieval of that information begins, followed by compression and final storage.

Whatever else Fiedler may describe, it is apparent that Fiedler describes an ongoing process of transferring the incoming information that is *not* previously recorded. The sequential processes of independent claims 5 and 17 cannot be suggested by Fiedler because an essential point in Fiedler is the belated decision concerning further storage and transfer of the information from the circular buffer. Moreover, in Fiedler there is no retrieval in units of information, one unit at a time, in the conversion of stored signals from the uncompressed format to the compressed format, as in the methods of claims 5 and 17. Those claims and their respective dependent claims 14-18, 16, and 19 are, therefore, patentable over Fiedler, even as hypothetically modified by Dye.

As already described, the method of independent claim 22 describes a prioritizing arrangement in which there is never simultaneous compressing and decompressing of audio tracks and in which decompressing already compressed format audio tracks takes precedence over compressing previously uncompressed format audio tracks. Nothing similar is described anywhere within Fiedler.

Applicants do not dispute that, as asserted in the Office Action, the information of Fiedler that is stored in the circular buffer and contingently transferred to the acquisition buffer might be considered audio tracks. However, there is no discussion of any prioritization with respect to compressing and decompressing steps in Fiedler. Those steps are only vaguely alluded to in Fiedler and not even asserted to be present in Dye. Moreover, the Office Action of May 16, 2006 did not comment on this important limitation of claim 22 or show its presence in the prior art. The rejection of that claim and its dependent claims 24, 26, and 27, should now be withdrawn.

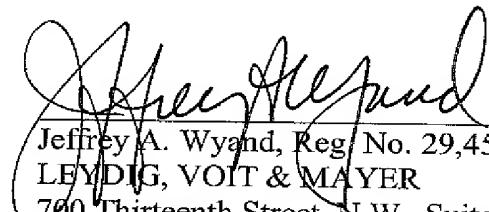
As previously described, independent claim 28 is directed to a system that includes certain physical elements programmed to perform in a particular way. No specific commentary on the limitations of this claim, and its dependent claims 32-34, has appeared in any Office Action. As amended, the system defined by the claim

provides a prioritization, similar to that of claim 22, which is not described anywhere in Fiedler or Dye. Therefore, the rejection of claim 28 and dependent claims 32-34 should be withdrawn and those claims allowed. Applicants request that any new or continued rejection include a clear explanation of the specific portions of Fiedler and Dye relied on in rejecting those claims.

Independent claim 61, like claims 22 and 28, describes a kind of prioritization in which the processor is active to convert uncompressed format sets of audio signals into compressed format signals only when the processor is not accessing an already stored audio segment. Again, this kind of processing control and limitation is not described nor suggested by Fiedler so that Fiedler, even as proposed to be modified by Dye, cannot suggest the invention as defined by claim 61 and its dependent claims 62-64. Those claims should be allowed.

Reconsideration and allowance of all claims now pending are earnestly solicited.

Respectfully submitted,



Jeffrey A. Wyand, Reg. No. 29,458
LEYDIG, VOIT & MAYER
700 Thirteenth Street, N.W., Suite 300
Washington, DC 20005-3960
(202) 737-6770 (telephone)
(202) 737-6776 (facsimile)

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